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<input type="checkbox"/>	L6	200112-21	0
<input type="checkbox"/>	L5	(tumor suppressor pVHL binding domain) with (pharmaceutical composition)	36
<input type="checkbox"/>	L4	(tumor suppressor pVHL binding domain) same (pharmaceutical composition)	79
<input type="checkbox"/>	L3	(von Hippel-Lindau tumor suppressor pVHL binding domain) same (pharmaceutical composition)	0
<input type="checkbox"/>	L2	(Hippel Lindau tumor suppressor pVHL binding domain) same (pharmaceutical composition)	0
<input type="checkbox"/>	L1	(Hippel Lindau tumor suppressor pVHL binding domain) with pharmaceutical composition	0

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Search Results - Record(s) 1 through 20 of 20 returned.

☐ 1. Document ID: US 20010047202 A1

L31: Entry 1 of 20

File: PGPB

Nov 29, 2001

DOCUMENT-IDENTIFIER: US 20010047202 A1

TITLE: BIOACTIVE ANEURYSM CLOSURE DEVICE ASSEMBLY AND KIT

Pre-Grant Publication Date:
20011129

Detail Description Paragraph:

[0053] Polynucleotide sequences useful in practice of the invention include DNA or RNA sequences having a therapeutic effect after being taken up by a cell. Examples of therapeutic polynucleotides include anti-sense DNA and RNA; DNA coding for an anti-sense RNA; or DNA coding for tRNA or rRNA to replace defective or deficient endogenous molecules. The polynucleotides of the invention can also code for therapeutic polypeptides. A polypeptide is understood to be any translation production of a polynucleotide regardless of size, and whether glycosylated or not. Therapeutic polypeptides include as a primary example, those polypeptides that can compensate for defective or deficient species in an animal, or those that act through toxic effects to limit or remove harmful cells from the body. In addition, the polypeptides or proteins that can be incorporated into the polymer coating 130, or whose DNA can be incorporated, include without limitation, proteins competent to induce angiogenesis, including factors such as, without limitation, acidic and basic fibroblast growth factors, vascular endothelial growth factor (including VEGF-2, VEGF-3, VEGF-A, VEGF-B, VEGF-C) hif-1 and other molecules competent to induce an upstream or downstream effect of an angiogenic factor; epidermal growth factor, transforming growth factor .alpha. and .beta., platelet-derived endothelial growth factor, platelet-derived growth factor, tumor necrosis factor a, hepatocyte growth factor and insulin like growth factor; growth factors; cell cycle inhibitors including CDK inhibitors; thymidine kinase ("TK") and other agents useful for interfering with cell proliferation, including agents for treating malignancies; and combinations thereof. Still other useful factors, which can be provided as polypeptides or as DNA encoding these polypeptides, include monocyte chemoattractant protein ("MCP-1"), and the family of bone morphogenic proteins ("BMP's"). The known proteins include BMP-2, BMP-3, BMP-4, BMP-5, BMP-6 (Vgr-1), BMP-7 (OP-1), BMP-8, BMP-9, BMP-10, BMP-11, BMP-12, BMP-13, BMP-14, BMP-15, and BMP-16. Currently preferred BMP's are any of BMP-2, BMP-3, BMP-4, BMP-5, BMP-6 and BMP-7. These dimeric proteins can be provided as homodimers, heterodimers, or combinations thereof, alone or together with other molecules. Alternatively or, in addition, molecules capable of inducing an upstream or downstream effect of a BMP can be provided. Such molecules include any of the "hedgehog" proteins, or the DNA's encoding them.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 2. Document ID: US 20010034531 A1

L31: Entry 2 of 20

File: PGPB

Oct 25, 2001

DOCUMENT-IDENTIFIER: US 20010034531 A1

TITLE: Bioactive three loop coil

Pre-Grant Publication Date:20011025Detail Description Paragraph:

[0083] Polynucleotide sequences useful in practice of the invention include DNA or RNA sequences having a therapeutic effect after being taken up by a cell. Examples of therapeutic polynucleotides include anti-sense DNA and RNA; DNA coding for an endogenous molecules. The polynucleotides of the invention can also code for therapeutic polypeptides. A polypeptide is understood to be any translation production of a polynucleotides regardless of size, and whether glycosylate or not. Therapeutic polypeptides include as a primary example, those polypeptides that can compensate for defective or deficient species in an animal, or those that act through toxic effects to limit or remove harmful cells from the body. In addition, the polypeptides or proteins that can be incorporated into the polymer coating 130, or whose DNA can be incorporated, include without limitation, proteins competent to induce angiogenesis, including factors such as, without limitation, acidic and basic fibroblast growth factors, vascular endothelial growth factor (including VEGF-2, VEGF-3, VEGF-A, VEGF-B, VEGF-C) hif-1 and other molecules competent to induce an upstream or downstream effect of an angiogenic factor; epidermal growth factor, transforming growth factor alpha and beta, platelet-derived endothelial growth factor, platelet-derived growth factor, tumor necrosis factor alpha, hepatocyte growth factor and insulin like growth factor; growth factors; cell cycle inhibitors including CDK inhibitors; thymidine kinase ("TK") and other agents useful for interfering with cell proliferation, including agents for treating malignancies; and combinations thereof. Still other useful factors, which can be provided as polypeptides or as DNA encoding these polypeptides, including monocyte chmoattractant protein ("MCP-1"), and the family of bone morphogenic proteins ("BMP's"). The known proteins include BMP-2, BMP-3, BMP-4, BMP-5, BMP-6 (Vgr-1), BMP-7 (OP-1), BMP-8, BMP-9, BMP-10, BMP-11, BMP-12, BMP-13, BMP-14, BMP15, and BMP-16. Currently preferred BMP's are any of BMP-2, BMP-3, BMP-4, BMP-5, BMP-6, and BMP-7. These dimeric proteins can be provided as homodimers, heterodimers, or combinations thereof, alone or together with other molecules. Alternatively or, in addition, molecules capable of inducing an upstream or downstream effect of a BMP can be provided. Such molecules include any of the "hedgehog" proteins, or the DNA's encoding them.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw Desc	Image
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☐ 3. Document ID: US 20010022988 A1

L31: Entry 3 of 20

File: PGPB

Sep 20, 2001

DOCUMENT-IDENTIFIER: US 20010022988 A1

TITLE: Device and method for protecting medical devices during a coating process

Pre-Grant Publication Date:20010920Detail Description Paragraph:

[0029] Polynucleotide sequences useful in practice of the invention include DNA or RNA sequences having a therapeutic effect after being taken up by a cell. Examples of therapeutic polynucleotides include anti-sense DNA and RNA; DNA coding for an anti-sense RNA; or DNA coding for tRNA or rRNA to replace defective or deficient endogenous molecules. The polynucleotides of the invention can also code for therapeutic proteins or polypeptides. A polypeptide is

understood to be any translation product of a polynucleotide regardless of size, and whether glycosylated or not. Therapeutic proteins and polypeptides include as a primary example, those proteins or polypeptides that can compensate for defective or deficient species in an animal, or those that act through toxic effects to limit or remove harmful cells from the body. In addition, the polypeptides or proteins that can be incorporated into the polymer coating, or whose DNA can be incorporated, include without limitation, angiogenic factors and other molecules competent to induce angiogenesis, including acidic and basic fibroblast growth factors, vascular endothelial growth factor, hif-1, epidermal growth factor, transforming growth factor .alpha. and .beta., platelet-derived endothelial growth factor, platelet-derived growth factor, tumor necrosis factor .alpha., hepatocyte growth factor and insulin like growth factor; growth factors; cell cycle inhibitors including CDK inhibitors; anti-restenosis agents, including p15, p16, p18, p19, p21, p27, p53, p57, Rb, nFkB and E2F decoys, thymidine kinase ("TK") and combinations thereof and other agents useful for interfering with cell proliferation, including agents for treating malignancies; and combinations thereof. Still other useful factors, which can be provided as polypeptides or as DNA encoding these polypeptides, include monocyte chemoattractant protein ("MCP-1"), and the family BMP-3, BMP-4, BMP-5, BMP-6 (Vgr-1), BMP-7 (OP-1), BMP-8, BMP-9, BMP-10, BMP-11, BMP-12, BMP-13, BMP-14, BMP-15, and BMP-16. Currently preferred BMPs are any of BMP-2, BMP-3, BMP-4, BMP-5, BMP-6 and BMP-7. These dimeric proteins can be provided as homodimers, heterodimers, or combinations thereof, alone or together with other molecules. Alternatively, or in addition, molecules capable of inducing an upstream or downstream effect of a BMP can be provided. Such molecules include any of the "hedgehog" proteins, or the DNA's encoding them.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 4. Document ID: US 20010018186 A1

L31: Entry 4 of 20

File: PGPB

Aug 30, 2001

DOCUMENT-IDENTIFIER: US 20010018186 A1

TITLE: Method for molecular diagnosis of tumor angiogenesis and metastasis

Pre-Grant Publication Date:

20010830

Detail Description Paragraph:

[0033] A major advantage of the present invention is that the need to manually count blood vessels in a sample is eliminated (although it may still be accomplished). The expression of HIF-1 is a marker for hypoxia occurring in and near the tumor mass. Thus, HIF-1 may be used as an indication that the necrotic, hypoxic portion of the tumor has been obtained. If VEGF is also present, this would indicate that the tumor has "switched" to the angiogenic phenotype and that metastasis is possible. The presence of additional receptor tyrosine kinases involved in angiogenesis provides further information regarding the stage of angiogenesis reached by the tumor and potential targets for therapeutic treatments.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 5. Document ID: US 6331396 B1

L31: Entry 5 of 20

File: USPT

Dec 18, 2001

DOCUMENT-IDENTIFIER: US 6331396 B1

TITLE: Arrays for identifying agents which mimic or inhibit the activity of interferons

DATE ISSUED (1):
20011218

Brief Summary Text (27):

The effect of the candidate agent on transcription is determined by measuring the relative amounts of the ISG transcripts that are present in the interferon treated cultures and the candidate agent-treated cultures as compared to the control cultures. Preferably, the relative amounts of IRG transcripts that are also present in the control culture, interferon-treated culture, and candidate agent-treated culture are also measured. Alternatively, the relative amounts of transcripts for a preselected subset of ISGs, or a preselected subset of IRGs or a single ISG such as for example, 2-5-A-synthetases, hypoxia inducible factor -1, scramblase, fas, BAK, PKR, RING4(TAP1), LMP7, MHC1, or a single IRG such as for example, bcr, PKD1, and COX17 are measured in the three cultures. The methods are especially useful for identifying therapeutic agents that are more potent than the known interferons and for identifying therapeutic agents that do not have the same deleterious effects as the interferon which is used in the assay. The method is also useful for identifying IFN mimics that can be used in patients that fail IFN therapy due to anti-IFN antibody production in such patients.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 6. Document ID: US 6319230 B1

L31: Entry 6 of 20

File: USPT

Nov 20, 2001

DOCUMENT-IDENTIFIER: US 6319230 B1

TITLE: Lateral needle injection apparatus and method

DATE ISSUED (1):
20011120

Detailed Description Text (34):

Examples of polynucleotide sequences useful in practice of the invention include DNA or RNA sequences having a therapeutic effect after being taken up by a cell. Examples of therapeutic polynucleotides include anti-sense DNA and RNA; DNA coding for an anti-sense RNA; or DNA coding for tRNA or rRNA to replace defective or deficient endogenous molecules. The polynucleotides of the invention can also code for therapeutic proteins or polypeptides. A polypeptide is understood to be any translation product of a polynucleotide regardless of size, and whether glycosylated or not. Therapeutic proteins and polypeptides include as a primary example, those proteins or polypeptides that can compensate for defective or deficient species in an animal, or those that act through toxic effects to limit or remove harmful cells from the body. In addition, the polypeptides or proteins useful in the present invention include, without limitation, angiogenic factors and other molecules competent to induce angiogenesis, including acidic and basic fibroblast growth factors, vascular endothelial growth factor, hif-1, epidermal growth factor, transforming growth factor .alpha. and .beta., platelet-derived endothelial growth factor, platelet-derived growth factor, tumor necrosis factor .alpha., hepatocyte growth factor and insulin like growth factor; growth factors; cell cycle inhibitors including CDK inhibitors; anti-restenosis agents, including p15, p16, p18, p19, p21, p27, p53, p57, Rb, nFkB and E2F decoys, thymidine kinase ("TK") and combinations thereof and other agents useful for interfering with cell proliferation, including agents for treating malignancies; and combinations thereof. Still other useful factors, which can be provided as polypeptides or as

DNA encoding these polypeptides, include monocyte chemoattractant protein ("MCP-1"), and the family of bone morphogenic proteins ("BMP's"). The known proteins include BMP-2, BMP-3, BMP-4, BMP-5, BMP-6 (Vgr-1), BMP-7 (OP-1), BMP-8, BMP-9, BMP-10, BMP-11, BMP-12, BMP-13, BMP-14, BMP-15, and BMP-16. Currently preferred BMP's are any of BMP-2, BMP-3, BMP-4, BMP-5, BMP-6 and BMP-7. These dimeric proteins can be provided as homodimers, heterodimers, or combinations thereof, alone or together with other molecules. Alternatively or, in addition, molecules capable of inducing an upstream or downstream effect of a BMP can be provided. Such molecules include any of the "hedgehog" proteins, or the DNA's encoding them.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 7. Document ID: US 6306125 B1

L31: Entry 7 of 20

File: USPT

Oct 23, 2001

DOCUMENT-IDENTIFIER: US 6306125 B1

TITLE: Angiogenic implant delivery system and method

DATE ISSUED (1):
20011023

Brief Summary Text (9):

Various growth factors have been used, including FGF-1 from strains of E. Coli (Cardio Vascular Genetic Engineering, Inc.), naked plasmid DNA encoding VEGF-165 (Human Genome Sciences, Inc.), adenovirus VEGF-121 (Gen Vec, Inc.), recombinant human VEGF-165 (Genentech, Inc.), human adenovirus-5 expressing human FGF-4 (Collateral Therapeutics, Inc.), bFGF incorporated into heparin-alginate microspheres, and hypoxia-inducible factor (HIF-1) (Genzyme).

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 8. Document ID: US 6274558 B1

L31: Entry 8 of 20

File: USPT

Aug 14, 2001

DOCUMENT-IDENTIFIER: US 6274558 B1

TITLE: Method for treating cardiac malfunction

DATE ISSUED (1):
20010814

Brief Summary Text (12):

This invention further relates to the findings that HIF can be administered therapeutically to treat cardiac glycoside intoxication, edematous disorders and hypotension. Also, HIF can be used to develop specific therapies to prevent hypertension.

Detailed Description Text (10):

FIG. 1E shows that 1 unit/ml HIF causes a 37.+- .3% increase in ASM compared to control (FIG. 1D), with a decrease in beating frequency and no change in the position of MR. Therefore, 1 unit/ml is within the therapeutic range, but exhibits no toxic effects.

Detailed Description Text (13):

In addition to its use in treating cardiac malfunction, a pharmaceutical composition of HIF can be administered (e.g., enterally or parenterally) to treat patients with serious or life-threatening cardiac glycoside intoxication. Currently, cardiac glycoside intoxication is treated either generally by administering potassium or antiarrhythmic drugs to the patient, or specifically by administering antibody fragments to specific cardiac glycoside preparations. Patients with severe toxicity may be unresponsive to general methods of treatment. In addition, although treatment with antibody fragments does neutralize cardiac glycosides in circulation, the antibodies may not effect cardiac glycosides that are bound to cardiac tissue. Furthermore, because antibodies are proteins, they are administered intravenously and can cause allergic reactions.

Detailed Description Text (18):

HIF produced potent, reversible vasoconstriction of the vessels, and these responses were dose dependent. Vessels remained completely viable after exposure to HIF, documenting absence of toxic effects. Maximum vasoconstrictive responses were similar to those produced by the known vasoconstrictor substances used as standards. Hypotension, abnormally low blood pressure, can be caused by low cardiac output, inadequate vascular constriction, or both occurring simultaneously. Since HIF has been demonstrated to both increase the strength of cardiac cell contraction and promote blood vessel constriction, its administration in therapeutic amounts would be an effective treatment for hypotension.

Detailed Description Text (22):

In addition, by potentially inhibiting the Na.sup.+, K.sup.+ -ATPase activity of renal tubular cells and thereby promoting sodium excretion, a pharmaceutical composition of HIF can be used as a natural diuretic, to promote excretion of excess salt and water by the kidneys in patients suffering from such common clinical conditions as congestive heart failure, cirrhosis of the liver, and nephrotic syndrome. Because of the specific inhibitory effect that HIF has on Na.sup.+, K.sup.+ -ATPase, diuretic therapy with HIF can be accomplished without the side effects (e.g., impotence, rashes, blood lipid abnormalities) which commonly occur with existing diuretic drugs.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 9. Document ID: US 6265383 B1

L31: Entry 9 of 20

File: USPT

Jul 24, 2001

DOCUMENT-IDENTIFIER: US 6265383 B1

TITLE: Treatment of ischemic cardiac malfunction

DATE ISSUED (1):20010724Brief Summary Text (14):

HIF slows heart rate in spontaneously beating cardiac myocytes, further reducing cardiac work and thereby diminishing oxygen requirement. The invention provides a single compound, HIF, which has the combined properties of producing a positive inotropic effect and enhancing coronary flow, and which can be used prophylactically and/or therapeutically to treat the identified conditions associated with heart failure.

Brief Summary Text (19):

The HIF of the present invention can be administered prophylactically to a host as a method of preventing the conditions described herein. Alternatively, HIF can be administered

therapeutically to a host as a method of treating an existing disease and/or condition in the host, and can result in amelioration or elimination of the disease and/or condition.

Brief Summary Text (22):

In a preferred embodiment, the HIF is formulated in accordance with routine procedures as a pharmaceutical composition adapted for intravenous administration to the mammalian host (e.g., a human). For example, HIF for intravenous administration can be a solution in sterile isotonic aqueous buffer. Where necessary, the HIF composition may also include a solubilizing agent and a local anesthetic to ease pain at the site of injection. Generally, the ingredients are supplied either separately or mixed together in unit dosage form, for example, as a dry lyophilized powder or water free concentrate in a hermetically sealed container such as an ampule or sachette indicating the quantity of active agent. Where the composition is administered by injection, an ampule of sterile water for injection or saline can be provided so that the ingredients may be mixed prior to administration. Thus, the invention also relates to the use of HIF in the manufacture of medicaments for the treatment and/or prevention of ischemic cardiac malfunction, coronary artery restenosis and/or stenosis of a coronary artery.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 10. Document ID: US 6263880 B1

L31: Entry 10 of 20

File: USPT

Jul 24, 2001

DOCUMENT-IDENTIFIER: US 6263880 B1

TITLE: Method of enhancing blood flow in tissue

DATE ISSUED (1):

20010724

Brief Summary Text (7):

The direct application of growth factors into the myocardium is currently undergoing intensive early clinical investigation. Growth factors have been delivered (a) directly into the myocardium during coronary by-pass surgery or through a mini-thoracotomy, (b) intra-coronarily using a catheter, (c) intravenously via infusion, and (d) in laser TMR channels via syringe. Various growth factors have been used, including FGF-1 from strains of E. Coli (Cardio Vascular Genetic Engineering, Inc.), naked plasmid DNA encoding VEGF-165 (Human Genome Sciences, Inc.), adenovirus VEGF-121 (Gen Vec, Inc.), recombinant human VEGF-165 (Genentech, Inc.), human adenovirus-5 expressing human FGF-4 (Collateral Therapeutics, Inc.), bFGF incorporated into heparin-alginate microspheres, and hypoxia-inducible factor (HIF-1) (Genzyme).

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 11. Document ID: US 6231590 B1

L31: Entry 11 of 20

File: USPT

May 15, 2001

DOCUMENT-IDENTIFIER: US 6231590 B1

TITLE: Bioactive coating for vaso-occlusive devices

DATE ISSUED (1):
20010515

Detailed Description Text (22):

Polynucleotide sequences useful in practice of the invention include DNA or RNA sequences having a therapeutic effect after being taken up by a cell. Examples of therapeutic polynucleotides include anti-sense DNA and RNA; DNA coding for an anti-sense RNA; or DNA coding for tRNA or rRNA to replace defective or deficient endogenous molecules. The polynucleotides of the invention can also code for therapeutic polypeptides. A polypeptide is understood to be any translation production of a polynucleotide regardless of size, and whether glycosylated or not. Therapeutic polypeptides include as a primary example, those polypeptides that can compensate for defective or deficient species in an animal, or those that act through toxic effects to limit or remove harmful cells from the body. In addition, the polypeptides or proteins that can be incorporated into the polymer coating 130, or whose DNA can be incorporated, include without limitation, proteins competent to induce angiogenesis, including factors such as, without limitation, acidic and basic fibroblast growth factors, vascular endothelial growth factor (including VEGF-2, VEGF-3, VEGF-A, VEGF-B, VEGF-C) hif-1 and other molecules competent to induce an upstream or downstream effect of an angiogenic factor; epidermal growth factor, transforming growth factor .alpha. and .beta., platelet-derived endothelial growth factor, platelet-derived growth factor, tumor necrosis factor .alpha., hepatocyte growth factor and insulin like growth factor; growth factors; cell cycle inhibitors including CDK inhibitors; thymidine kinase ("TK") and other agents useful for interfering with cell proliferation, including agents for treating malignancies; and combinations thereof. Still other useful factors, which can be provided as polypeptides or as DNA encoding these polypeptides, include monocyte chemoattractant protein ("MCP-1"), and the family of bone morphogenic proteins ("BMP's"). The known proteins include BMP-2, BMP-3, BMP-4, BMP-5, BMP-6 (Vgr-1), BMP-7 (OP-1), BMP-8, BMP-9, BMP-10, BMP-11, BMP-12, BMP-13, BMP-14, BMP-15, and BMP-16. Currently preferred BMP's are any of BMP-2, BMP-3, BMP-4, BMP-5, BMP-6 and BMP-7. These dimeric proteins can be provided as homodimers, heterodimers, or combinations thereof, alone or together with other molecules. Alternatively or, in addition, molecules capable of inducing an upstream or downstream effect of a BMP can be provided. Such molecules include any of the "hedgehog" proteins, or the DNA's encoding them.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 12. Document ID: US 6222018 B1

L31: Entry 12 of 20

File: USPT

Apr 24, 2001

DOCUMENT-IDENTIFIER: US 6222018 B1
TITLE: Hypoxia inducible factor-1 and method of use

DATE ISSUED (1):
20010424

Brief Summary Text (10):

The invention provides methods for preventing and treating hypoxia-related disorders, including tissue damage resulting from hypoxia and reperfusion, by administering a therapeutically effective amount of HIF-1 protein. Also included in the invention is gene therapy by introducing into cells a nucleotide sequence encoding HIF-1. The invention also provides a pharmaceutical composition comprising a pharmaceutically acceptable carrier admixed with a therapeutically effective amount of HIF-1 or nucleotide sequence encoding HIF-1.

Detailed Description Text (34):

The present invention also provides gene therapy for the treatment of hypoxia-related

disorders, which are improved or ameliorated by the HIF-1 polypeptide. Such therapy would achieve its therapeutic effect by introduction of the HIF-1.alpha. nucleotide, alone or in combination with HIF-1.beta. nucleotide, into cells exposed to hypoxic conditions. Delivery of HIF-1.alpha. nucleotide, alone or in combination with HIF-1.beta. nucleotide, can be achieved using a recombinant expression vector such as a chimeric virus or a colloidal dispersion system. Especially preferred for therapeutic delivery of sequences is the use of targeted liposomes.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 13. Document ID: US 6124131 A

L31: Entry 13 of 20

File: USPT

Sep 26, 2000

DOCUMENT-IDENTIFIER: US 6124131 A

TITLE: Mutant hypoxia inducible factor-1 HIF-1

Abstract Text (1):

Substantially purified stable human hypoxia-inducible factor-1.alpha. (sHIF-1.alpha.) mutein is provided. Polynucleotides encoding stable human hypoxia-inducible factor-1.alpha. mutein are also provided. A method is provided for treating a hypoxia-related tissue damage in a subject by administering to the subject a therapeutically effective amount of a sHIF-1.alpha. mutein or a nucleotide sequence including an expression control sequence operatively linked to a polynucleotide encoding a stable hypoxia-inducible factor-1.alpha. mutein. Formulations are provided for the administration of stable human hypoxia inducible factor-1.alpha. (HIF-1.alpha.) polypeptide or a polynucleotide encoding stable human hypoxia inducible factor-1.alpha. (HIF-1.alpha.) to a patient having hypoxia-related tissue damage.

DATE ISSUED (1):

20000926

Brief Summary Text (17):

The invention also provides a formulation for administration of a polynucleotide encoding stable human hypoxia inducible factor-1.alpha. (HIF-1.alpha.) to a patient having hypoxia related tissue damage, including a therapeutically effective amount of a nucleic acid sequence comprising an expression control sequence operatively linked to a polynucleotide encoding a polypeptide having a sequence as set forth in SEQ ID NO:1, wherein amino acids 392 to 428 are deleted therefrom, amino acid 551 is changed from a serine to any other amino acid, and amino acid 552 is changed from a threonine to any other amino acid; and a pharmaceutically acceptable carrier.

Detailed Description Text (59):

The present invention provides the introduction of polynucleotides encoding sHIF-1.alpha. for the treatment of hypoxia-related disorders, which are improved or ameliorated by expression of the HIF-1.alpha. polypeptide. Such therapy would achieve its therapeutic effect by introduction of the sHIF-1.alpha. polynucleotide into cells exposed to hypoxic conditions. HIF-1.alpha. is thus expressed in both the hypoxic and surrounding nonhypoxic tissues, such that it can dimerize with HIF-1.beta. (which is present in excess in hypoxic and nonhypoxic cells), and activate the transcription of downstream target genes. Examples of genes which can be activated by HIF-1 are vascular endothelial growth factor, glucose transporters, and glycolytic enzymes. These genes mediate important adaptive responses to hypoxia including angiogenesis and glycolysis.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 14. Document ID: US 6020462 A

L31: Entry 14 of 20

File: USPT

Feb 1, 2000

DOCUMENT-IDENTIFIER: US 6020462 A

TITLE: Nucleic acids encoding the hypoxia inducible factor-1

DATE ISSUED (1):20000201Brief Summary Text (10):

The invention provides methods for preventing and treating hypoxia-related disorders, including tissue damage resulting from hypoxia and reperfusion, by administering a therapeutically effective amount of HIF-1 protein. Also included in the invention is gene therapy by introducing into cells a nucleotide sequence encoding HIF-1. The invention also provides a pharmaceutical composition comprising a pharmaceutically acceptable carrier admixed with a therapeutically effective amount of HIF-1 or nucleotide sequence encoding HIF-1.

Detailed Description Text (34):

The present invention also provides gene therapy for the treatment of hypoxia-related disorders, which are improved or ameliorated by the HIF-1 polypeptide. Such therapy would achieve its therapeutic effect by introduction of the HIF-1.alpha. nucleotide, alone or in combination with HIF-1.beta. nucleotide, into cells exposed to hypoxic conditions. Delivery of HIF-1.alpha. nucleotide, alone or in combination with HIF-1.beta. nucleotide, can be achieved using a recombinant expression vector such as a chimeric virus or a colloidal dispersion system. Especially preferred for therapeutic delivery of sequences is the use of targeted liposomes.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 15. Document ID: US 5942385 A

L31: Entry 15 of 20

File: USPT

Aug 24, 1999

DOCUMENT-IDENTIFIER: US 5942385 A

TITLE: Method for molecular diagnosis of tumor angiogenesis and metastasis

DATE ISSUED (1):19990824Detailed Description Text (14):

A major advantage of the present invention is that the need to manually count blood vessels in a sample is eliminated (although it may still be accomplished). The expression of HIF-1 is a marker for hypoxia occurring in and near the tumor mass. Thus, HIF-1 may be used as an indication that the necrotic, hypoxic portion of the tumor has been obtained. If VEGF is also present, this would indicate that the tumor has "switched" to the angiogenic phenotype and that metastasis is possible. The presence of additional receptor tyrosine kinases involved in angiogenesis provides further information regarding the stage of angiogenesis reached by the

tumor and potential targets for therapeutic treatments.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 16. Document ID: US 5910484 A

L31: Entry 16 of 20

File: USPT

Jun 8, 1999

DOCUMENT-IDENTIFIER: US 5910484 A

TITLE: Treatment of ischemic cardiac malfunction

DATE ISSUED (1):

19990608

Brief Summary Text (14):

HIF slows heart rate in spontaneously beating cardiac myocytes, further reducing cardiac work and thereby diminishing oxygen requirement. The invention provides a single compound, HIF, which has the combined properties of producing a positive inotropic effect and enhancing coronary flow, and which can be used prophylactically and/or therapeutically to treat the identified conditions associated with heart failure.

Detailed Description Text (5):

The HIF of the present invention can be administered prophylactically to a host as a method of preventing the conditions described herein. Alternatively, HIF can be administered therapeutically to a host as a method of treating an existing disease and/or condition in the host, and can result in amelioration or elimination of the disease and/or condition.

Detailed Description Text (8):

In a preferred embodiment, the HIF is formulated in accordance with routine procedures as a pharmaceutical composition adapted for intravenous administration to the mammalian host (e.g., a human). For example, HIF for intravenous administration can be a solution in sterile isotonic aqueous buffer. Where necessary, the HIF composition may also include a solubilizing agent and a local anesthetic to ease pain at the site of injection. Generally, the ingredients are supplied either separately or mixed together in unit dosage form, for example, as a dry lyophilized powder or water free concentrate in a hermetically sealed container such as an ampule or sachette indicating the quantity of active agent. Where the composition is administered by injection, an ampule of sterile water for injection or saline can be provided so that the ingredients may be mixed prior to administration. Thus, the invention also relates to the use of HIF in the manufacture of medicaments for the treatment and/or prevention of ischemic cardiac malfunction, coronary artery restenosis and/or stenosis of a coronary artery.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 17. Document ID: US 5882914 A

L31: Entry 17 of 20

File: USPT

Mar 16, 1999

DOCUMENT-IDENTIFIER: US 5882914 A

**** See image for Certificate of Correction ****

TITLE: Nucleic acids encoding the hypoxia inducible factor-1

DATE ISSUED (1):
19990316

Brief Summary Text (10):

The invention provides methods for preventing and treating hypoxia-related disorders, including tissue damage resulting from hypoxia and reperfusion, by administering a therapeutically effective amount of HIF-1 protein. Also included in the invention is gene therapy by introducing into cells a nucleotide sequence encoding HIF-1. The invention also provides a pharmaceutical composition comprising a pharmaceutically acceptable carrier admixed with a therapeutically effective amount of HIF-1 or nucleotide sequence encoding HIF-1.

Detailed Description Text (34):

The present invention also provides gene therapy for the treatment of hypoxia-related disorders, which are improved or ameliorated by the HIF-1 polypeptide. Such therapy would achieve its therapeutic effect by introduction of the HIF-1.alpha. nucleotide, alone or in combination with HIF-1.beta. nucleotide, into cells exposed to hypoxic conditions. Delivery of HIF-1.alpha. nucleotide, alone or in combination with HIF-1.beta. nucleotide, can be achieved using a recombinant expression vector such as a chimeric virus or a colloidal dispersion system. Especially preferred for therapeutic delivery of sequences is the use of targeted liposomes.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 18. Document ID: US 5734575 A

L31: Entry 18 of 20

File: USPT

Mar 31, 1998

DOCUMENT-IDENTIFIER: US 5734575 A

TITLE: Method and apparatus for detecting high-impedance faults in electrical power systems

DATE ISSUED (1):
19980331

Brief Summary Text (7):

A problem constantly plaguing the electrical power industry is finding an effective way to differentiate between a high-Z fault (HIF) condition and similar effects caused by changes in the loads attached to the distribution network. In addition to load switching events, power factor correcting capacitor banks are frequently switched on and off the network and transformer taps are automatically changed to keep the network voltage constant. Both of these events also create conditions on the network which may appear similar to an HIF condition. Any effective system for detecting HIFs must be able to distinguish fault conditions from normal load switching events. A system which ignores legitimate HIF conditions risks the aforementioned dangers while a system which falsely trips in response to normal load switching events can wrack havoc with consumers relying on uninterrupted electrical service. Interruption of electrical service to certain manufacturing processes, for example, may destroy work-in-process and result in large expense to the manufacturer. An interruption of medical apparatus can also be inconvenient at best, and disastrous at worst.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 19. Document ID: US 5716937 A

L31: Entry 19 of 20

File: USPT

Feb 10, 1998

DOCUMENT-IDENTIFIER: US 5716937 A

TITLE: Method for treating cardiac malfunction

DATE ISSUED (1):

19980210

Brief Summary Text (12):

This invention further relates to the findings that HIF can be administered therapeutically to treat cardiac glycoside intoxication, edematous disorders and hypotension. Also, HIF can be used to develop specific therapies to prevent hypertension.

Detailed Description Text (10):

FIG. 1E shows that 1 unit/ml HIF causes a $37. \pm .3\%$ increase in ASM compared to control (FIG. 1D), with a decrease in beating frequency and no change in the position of MR. Therefore, 1 unit/ml is within the therapeutic range, but exhibits no toxic effects.

Detailed Description Text (13):

In addition to its use in treating cardiac malfunction, a pharmaceutical composition of HIF can be administered (e.g., enterally or parenterally) to treat patients with serious or life-threatening cardiac glycoside intoxication. Currently, cardiac glycoside intoxication is treated either generally by administering potassium or antiarrhythmic drugs to the patient, or specifically by administering antibody fragments to specific cardiac glycoside preparations. Patients with severe toxicity may be unresponsive to general methods of treatment. In addition, although treatment with antibody fragments does neutralize cardiac glycosides in circulation, the antibodies may not effect cardiac glycosides that are bound to cardiac tissue. Furthermore, because antibodies are proteins, they are administered intravenously and can cause allergic reactions.

Detailed Description Text (18):

HIF produced potent, reversible vasoconstriction of the vessels, and these responses were dose dependent. Vessels remained completely viable after exposure to HIF, documenting absence of toxic effects. Maximum vasoconstrictive responses were similar to those produced by the known vasoconstrictor substances used as standards. Hypotension, abnormally low blood pressure, can be caused by low cardiac output, inadequate vascular constriction, or both occurring simultaneously. Since HIF has been demonstrated to both increase the strength of cardiac cell contraction and promote blood vessel constriction, its administration in therapeutic amounts would be an effective treatment for hypotension.

Detailed Description Text (22):

In addition, by potentially inhibiting the Na.sup.+ , K.sup.+ -ATPase activity of renal tubular cells and thereby promoting sodium excretion, a pharmaceutical composition of HIF can be used as a natural diuretic, to promote excretion of excess salt and water by the kidneys in patients suffering from such common clinical conditions as congestive heart failure, cirrhosis of the liver, and nephrotic syndrome. Because of the specific inhibitory effect that HIF has on Na.sup.+ , K.sup.+ -ATPase, diuretic therapy with HIF can be accomplished without the side effects (e.g., impotence, rashes, blood lipid abnormalities) which commonly occur with existing diuretic drugs.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 20. Document ID: US 5537327 A

L31: Entry 20 of 20

File: USPT

Jul 16, 1996

DOCUMENT-IDENTIFIER: US 5537327 A

TITLE: Method and apparatus for detecting high-impedance faults in electrical power systems

DATE ISSUED (1):

19960716

Brief Summary Text (7):

A problem constantly plaguing the electrical power industry is finding an effective way to differentiate between a high-Z fault (HIF) condition and similar effects caused by changes in the loads attached to the distribution network. In addition to load switching events, power factor correcting capacitor banks are frequently switched on and off the network and transformer taps are automatically changed to keep the network voltage constant. Both of these events also create conditions on the network which may appear similar to an HIF condition. Any effective system for detecting HIFs must be able to distinguish fault conditions from normal load switching events. A system which ignores legitimate HIF conditions risks the aforementioned dangers while a system which falsely trips in response to normal load switching events can wrack havoc with consumers relying on uninterrupted electrical service. Interruption of electrical service to certain manufacturing processes, for example, may destroy work-in-process and result in large expense to the manufacturer. An interruption of medical apparatus can also be inconvenient at best, and disastrous at worst.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw Desc	Image
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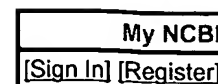
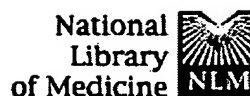
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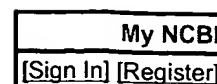
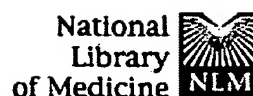
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☐ 17: [Yu F, White SB, Zhao Q, Lee FS.](#)

[Related Articles](#), [Links](#)



Dynamic, site-specific interaction of hypoxia-inducible factor-1alpha with the von Hippel-Lindau tumor suppressor protein.

Cancer Res. 2001 May 15;61(10):4136-42.

PMID: 11358837 [PubMed - indexed for MEDLINE]

☐ 18: [Kuznetsova AV, Meller J, Schnell PO, Nash JA, Ignacak ML, Sanchez Y, Conaway JW, Conaway RC, Czyzyk-Krzeska MF.](#)

[Related Articles](#), [Links](#)



von Hippel-Lindau protein binds hyperphosphorylated large subunit of RNA polymerase II through a proline hydroxylation motif and targets it for ubiquitination.

Proc Natl Acad Sci U S A. 2003 Mar 4;100(5):2706-11. Epub 2003 Feb 25.

PMID: 12604794 [PubMed - indexed for MEDLINE]

☐ 19: [Mahon PC, Hirota K, Semenza GL.](#)

[Related Articles](#), [Links](#)



FIH-1: a novel protein that interacts with HIF-1alpha and VHL to mediate repression of HIF-1 transcriptional activity.

Genes Dev. 2001 Oct 15;15(20):2675-86.

PMID: 11641274 [PubMed - indexed for MEDLINE]

☐ 20: [Clifford SC, Cockman ME, Smallwood AC, Mole DR, Woodward ER, Maxwell PH, Ratcliffe PJ, Maher ER.](#)

[Related Articles](#), [Links](#)



Contrasting effects on HIF-1alpha regulation by disease-causing pVHL mutations correlate with patterns of tumourigenesis in von Hippel-Lindau disease.

Hum Mol Genet. 2001 May 1;10(10):1029-38.

PMID: 11331613 [PubMed - indexed for MEDLINE]

Items 1 - 20

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Feb 10 2005 12:03:04

=> d his

FILE 'HCAPLUS' ENTERED AT 07:18:38 ON 09 FEB 2005

L1 1 S US20040214777/PN OR (US2001-032361# OR WO2002-US31699)/AP,PRN
E MCGRATH K/AU
L2 112 S E3-E8,E24-E26
E KIMBERL/PA,CS
L3 27 S E5-E8
L4 2148 S (KIMBERLY?(L)CLARK?)/PA,CS
L5 209 S E10,E11 NOT L4
L6 15132 S ?VEGF? OR VASCULAR ENDOTHELIAL GROWTH FACTOR

FILE 'REGISTRY' ENTERED AT 07:21:42 ON 09 FEB 2005

L7 1 S 127464-60-2

FILE 'HCAPLUS' ENTERED AT 07:22:03 ON 09 FEB 2005

L8 10938 S L7
L9 556 S VASCULAR PERMEABILITY FACTOR OR VASCULOTROPIN OR FSDGF(L)PITU
L10 2 S FOLLICULO STELLATE DERIVED GROWTH FACTOR
L11 15320 S L6-L10
L12 1123 S HYPOXIA INDUCIBLE FACTOR 1 ALPHA
L13 83 S HYPOXIA INDUCIBLE FACTOR 1ALPHA
L14 2 S HIP() (1ALPHA OR 1 ALPHA)
L15 1351 S HIF() (1ALPHA OR 1 ALPHA)
L16 1466 S L12-L15
L17 4 S L2-L4 AND L11
L18 1 S L2-L4 AND L16
L19 4 S L17,L18
L20 1 S L19 AND L17 AND L18
L21 1 S L1,L20
SEL RN

FILE 'REGISTRY' ENTERED AT 07:26:47 ON 09 FEB 2005

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L25 7 S ..'HYP'.. [MGP] [MGP] [DE] /SQSP
SEL RN 1 4
L26 2 S L25 AND E8-E9
SAV L25 LIU032361/A

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L27 0 S L26

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L28 2 S L26
L29 2 S L28 AND L1-L6,L8-L21
L30 2 S L23
L31 2 S L30 AND L1-L6,L8-L21
L32 2 S L21,L28-L31

FILE 'USPATFULL' ENTERED AT 07:39:31 ON 09 FEB 2005

L33 2 S L26 OR L23

=> fil hcaplus

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FILE COVERS 1907 - 9 Feb 2005 VOL 142 ISS 7
FILE LAST UPDATED: 8 Feb 2005 (20050208/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L32 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:551605 HCAPLUS
DN 139:122741
ED Entered STN: 18 Jul 2003
TI Peptide activators of VEGF
IN McGrath, Kevin
PA Kimberly-Clark Worldwide, Inc., USA; Kimberly Clark Co.
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12N
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003057820	A2	20030717	WO 2002-US31699	20021004 <--
	WO 2003057820	A3	20031204		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	US 2004214777	A1	20041028	US 2001-32361	20011221 <--
PRAI	US 2001-32361	A	20011221	<--	

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	WO 2003057820	ICM	C12N
	US 2004214777	ECLA	C07K014/47A1; C07K014/52
OS	MARPAT 139:122741		
AB	<p>The invention provides peptide inhibitors that inhibit ubiquitination of hypoxia-inducible factor 1 alpha (HIF 1α) and thereby activate transcription of erythropoietin (EPO), vascular endothelial growth factor (VEGF), and certain glycolytic enzymes. The invention further provides formulations containing the present peptides and methods of using the present peptides for therapeutic purposes. Such therapeutic purposes include stimulating angiogenesis in injured tissues such as chronic wounds, heart</p>		

tissues injured by ischemia or heart attack, and neural tissues injured by stroke.

ST peptide stimulant **VEGF** angiogenesis hypoxia
 IT Heart, disease
 (attack; peptide activators of **VEGF** for stimulation of angiogenesis)
 IT Drug delivery systems
 (carriers; peptide activators of **VEGF** for stimulation of angiogenesis)
 IT Medical goods
 (dressings; peptide activators of **VEGF** for stimulation of angiogenesis)
 IT Prosthetic materials and Prosthetics
 (implants; peptide activators of **VEGF** for stimulation of angiogenesis)
 IT Human
 Hypoxia, animal
 Ischemia
 Mammalia
 (peptide activators of **VEGF** for stimulation of angiogenesis)
 IT Angiogenic factors
 Peptides, biological studies
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (peptide activators of **VEGF** for stimulation of angiogenesis)
 IT Brain, disease
 (stroke; peptide activators of **VEGF** for stimulation of angiogenesis)
 IT Drug delivery systems
 (sustained-release; peptide activators of **VEGF** for stimulation of angiogenesis)
 IT 127464-60-2, Vascular endothelial growth factor
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (activators of; peptide activators of **VEGF** for stimulation of angiogenesis)
 IT 462630-60-0 560085-65-6 561346-13-2
 RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (peptide activators of **VEGF** for stimulation of angiogenesis)
 IT 561118-44-3 561118-45-4
 RL: PRP (Properties)
 (unclaimed protein sequence; peptide activators of **VEGF**)
 IT 561108-82-5
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (unclaimed protein sequence; peptide activators of **VEGF** for stimulation of angiogenesis)
 IT 127464-60-2, Vascular endothelial growth factor
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (activators of; peptide activators of **VEGF** for stimulation of angiogenesis)
 RN 127464-60-2 HCAPLUS
 CN Vascular endothelial growth factor (9CI) (CA INDEX NAME)

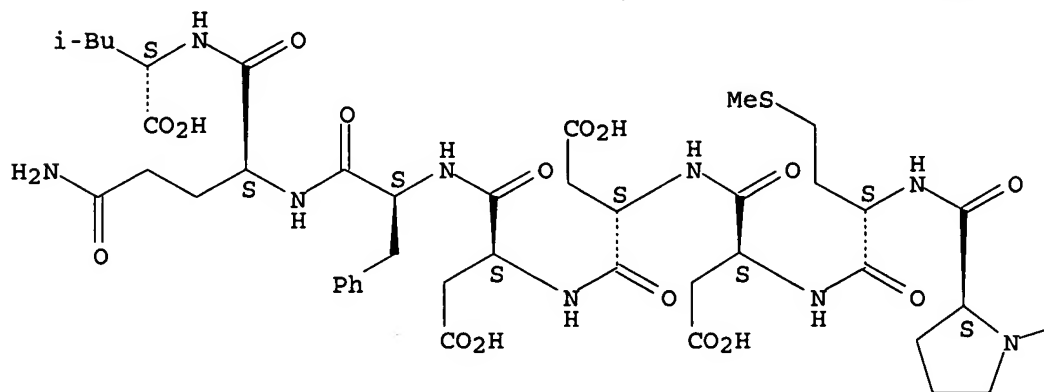
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IT 462630-60-0 560085-65-6 561346-13-2
 RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (peptide activators of **VEGF** for stimulation of angiogenesis)
 RN 462630-60-0 HCAPLUS

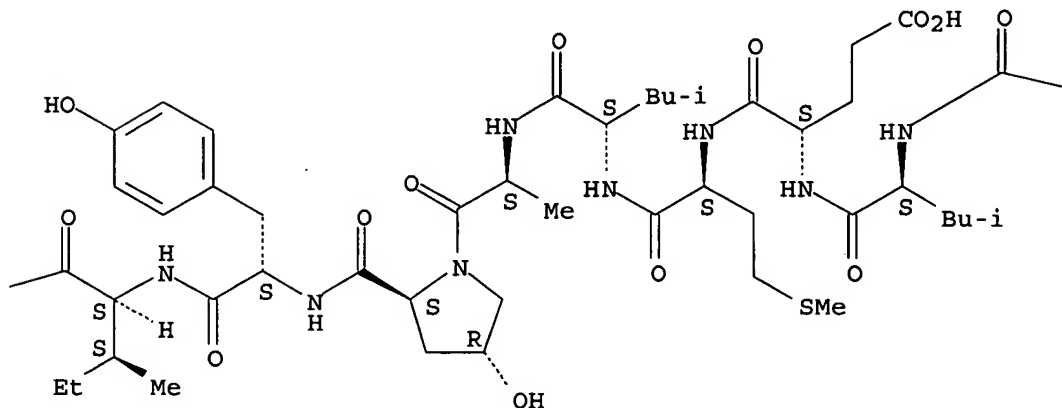
CN L-Leucine, L- α -aspartyl-L-leucyl-L- α -aspartyl-L-leucyl-L- α -glutamyl-L-methionyl-L-leucyl-L-alanyl-(4R)-4-hydroxy-L-prolyl-L-tyrosyl-L-isoleucyl-L-prolyl-L-methionyl-L- α -aspartyl-L- α -aspartyl-L- α -aspartyl-L-phenylalanyl-L-glutamyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

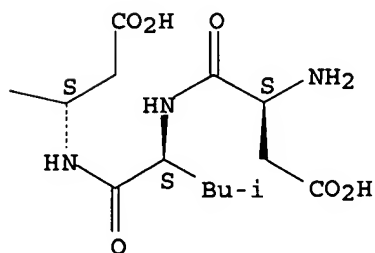
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PAGE 1-B



PAGE 1-C

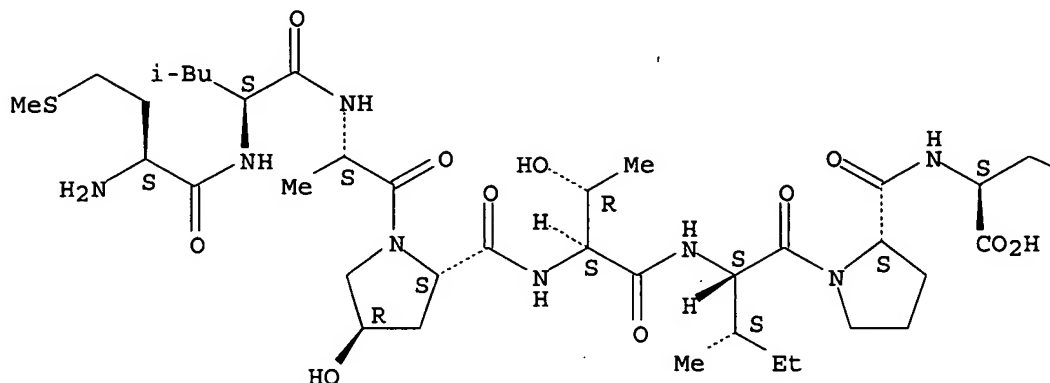


RN 560085-65-6 HCAPLUS

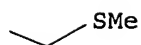
CN L-Methionine, L-methionyl-L-leucyl-L-alanyl-(4R)-4-hydroxy-L-prolyl-L-threonyl-L-isoleucyl-L-prolyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



RN 561346-13-2 HCAPLUS

CN L-Leucine, L-tyrosylglycyl-L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl-L-arginyl-L-α-aspartyl-L-leucyl-L-α-aspartyl-L-leucyl-L-α-glutamyl-L-methionyl-L-leucyl-L-alanyl-(4R)-4-hydroxy-L-prolyl-L-tyrosyl-L-isoleucyl-L-prolyl-L-methionyl-L-α-aspartyl-L-α-aspartyl-L-α-aspartyl-L-phenylalanyl-L-glutaminyl- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L32 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:736425 HCAPLUS

DN 137:275008

ED Entered STN: 27 Sep 2002

TI Identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and C. elegans

IN Maxwell, Patrick Henry; Pugh, Christopher William; Ratcliffe, Peter John; Schofield, Christopher Joseph

PA Isis Innovation Limited, UK

SO PCT Int. Appl., 256 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C12Q001-00

CC 7-2 (Enzymes)

Section cross-reference(s): 1, 3, 12, 13, 63

FAN.CNT 1

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

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PI  WO 2002074981      A2      20020926      WO 2002-GB1381      20020321
    WO 2002074981      A3      20021121
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          GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
          LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
          PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
          UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
          TJ, TM
      RW:  GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
          CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
          BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    EP 1379630          A2      20040114      EP 2002-706994      20020321
      R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
          IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
    JP 2004524848      T2      20040819      JP 2002-574370      20020321
    US 2004146964      A1      20040729      US 2004-472595      20040120
PRAI GB 2001-7123      A      20010321
    GB 2001-18952      A      20010802
    WO 2002-GB1381      W      20020321

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CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002074981	ICM	C12Q001-00
JP 2004524848	FTERM	4B024/AA01; 4B024/AA11; 4B024/BA08; 4B024/CA02; 4B024/DA02; 4B024/HA11; 4B024/HA17; 4B050/CC03; 4B050/DD11; 4B050/LL01; 4B063/QA18; 4B063/QQ22; 4B063/QQ79; 4B063/QR02; 4B063/QR48; 4C084/AA02; 4C084/AA06; 4C084/AA07; 4C084/AA13; 4C084/BA01; 4C084/BA22; 4C084/BA44; 4C084/CA53; 4C084/DC28; 4C084/DC32; 4C084/ZA422; 4C084/ZA542; 4C084/ZA892; 4C084/ZB082; 4C084/ZB112; 4C084/ZB262; 4C084/ZC202; 4C085/AA13; 4C085/AA14; 4C085/BB11; 4C085/BB22; 4C085/DD63; 4C085/DD88; 4C086/AA01; 4C086/EA16; 4C086/MA01; 4C086/MA04; 4C086/ZA42; 4C086/ZA54; 4C086/ZA89; 4C086/ZB08; 4C086/ZB11; 4C086/ZB26; 4C086/ZC20; 4H045/AA10; 4H045/AA11; 4H045/AA30; 4H045/BA17; 4H045/CA40; 4H045/DA75; 4H045/EA20; 4H045/EA50; 4H045/FA74
US 2004146964	ECLA	C07K014/47A1; C12N009/02L; C12Q001/26

OS MARPAT 137:275008

AB The present invention relates to a novel class of specific prolyl-hydroxylases which act on hypoxia-inducible factor alpha (HIF- α) and which are involved in the regulation of the cellular turnover of HIF (HIF hydroxylase). The interaction between HIF- α and von Hippel-Lindau tumor suppressor protein (VHL) is controlled by hydroxylation of critical proline residues in HIF- α which is mediated by HIF-hydroxylases, which include the Caenorhabditis elegans EGL-9 and human PHDL 1-3. The cDNA sequences and the encoded amino acid sequences of C. elegans EGL-9 and human PHDL 1-3 are disclosed. The polypeptides of the invention have in particular prolyl hydroxylase activity. An assay method monitors the interaction of the HIF hydroxylase with a substrate. Modulators of HIF hydroxylase are provided for use in the treatment of a condition associated with increased or decreased HIF levels or activity or for the treatment of a condition where it is desirable to modulate HIF levels or activity.

ST HIF prolyl hydroxylase detn cDNA sequence human Caenorhabditis therapeutic
IT Transcription factors

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);
BUU (Biological use, unclassified); ANST (Analytical study); BIOL
(Biological study); USES (Uses)
(HIF-1 (hypoxia-inducible factor

1), α subunit; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT Transcription factors

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(HIF-2 (hypoxia-inducible factor 2), α subunit; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT RNA

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(RNAi; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT Proteins

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(VHL (von Hippel-Lindau); identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT Transplant and Transplantation

(allotransplant; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT Antibodies and Immunoglobulins

RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(anti-HIF prolyl hydroxylase; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT Transplant and Transplantation

(auto-; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT Hydroxylation

(enzymic; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT Antibodies and Immunoglobulins

RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(fragments, anti-HIF prolyl hydroxylase; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT Anti-inflammatory agents

Anti-ischemic agents

Antitumor agents

Caenorhabditis elegans

Drug screening

Drugs

Gene therapy

Human

Immunotherapy

Molecular cloning

Post-translational processing

Protein sequences

Wound healing promoters

cDNA sequences

(identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

- IT Antisense oligonucleotides
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)
- IT Reporter gene
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(in HIF hydroxylase assay; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)
- IT Angiogenesis
(peptide blockade of HIF- α degradation effect on; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)
- IT Hypertension
Inflammation
Ischemia
Neoplasm
(treatment of; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)
- IT Transplant and Transplantation
(xenotransplant; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)
- IT 89464-63-1
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(HIF hydroxylase inhibitor; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)
- IT 65443-94-9P 462630-61-1P 462630-65-5P
RL: BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(HIF hydroxylase modulator; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)
- IT 65134-66-9P 112093-07-9P 462630-62-2P 462630-63-3P 462630-64-4P
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(HIF hydroxylase modulator; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)
- IT 463998-71-2
RL: PRP (Properties)
(Unclaimed; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)
- IT 462178-30-9DP, subfragments are claimed 462178-30-9P 462178-31-0DP, subfragments are claimed 462178-31-0P 463995-48-4DP, subfragments are claimed 463995-49-5DP, subfragments are claimed
RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)
- IT 345967-15-9P, HIF prolyl hydroxylase
RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); THU

(Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT 110-15-6, Butanedioic acid, biological studies 124-38-9, Carbon dioxide, biological studies 328-50-7
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT 462630-60-0D, variants are claimed
 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT 242447-85-4, GenBank AF178536 343560-08-7, GenBank AJ310543
 343560-10-1, GenBank AJ310545
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT 9028-06-2
 RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
 (inhibitor; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT 292545-23-4, GenBank AK025273 304630-95-3, GenBank AF229245
 463995-44-0D, subfragments are claimed 463995-45-1D, subfragments are claimed 463995-46-2D, subfragments are claimed 463995-47-3D, subfragments are claimed
 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (nucleotide sequence; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT 147-85-3, L-Proline, biological studies
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (of substrate; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT 584-08-7, Potassium carbonate 590-92-1, 3-Bromopropionic acid
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (preparation of HIF hydroxylase modulator; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT 56-41-7, L-Alanine, reactions 338-69-2, D-Alanine 1118-89-4, Diethyl-L-glutamate hydrochloride 5781-53-3, Methyl oxalyl chloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of HIF hydroxylase modulator; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT 463998-63-2 463998-89-2
 RL: PRP (Properties)
 (unclaimed nucleotide sequence; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT 463998-64-3 463998-65-4 463998-66-5 463998-67-6 463998-68-7
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463998-80-3 463998-81-4 463998-82-5 463998-83-6 463998-84-7
 463998-85-8 463998-86-9 463998-87-0 463998-88-1

RL: PRP (Properties)

(unclaimed sequence; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

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 463932-76-5 463932-77-6 463932-78-7

RL: PRP (Properties)

(unclaimed sequence; identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

IT 462630-60-0D, variants are claimed

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

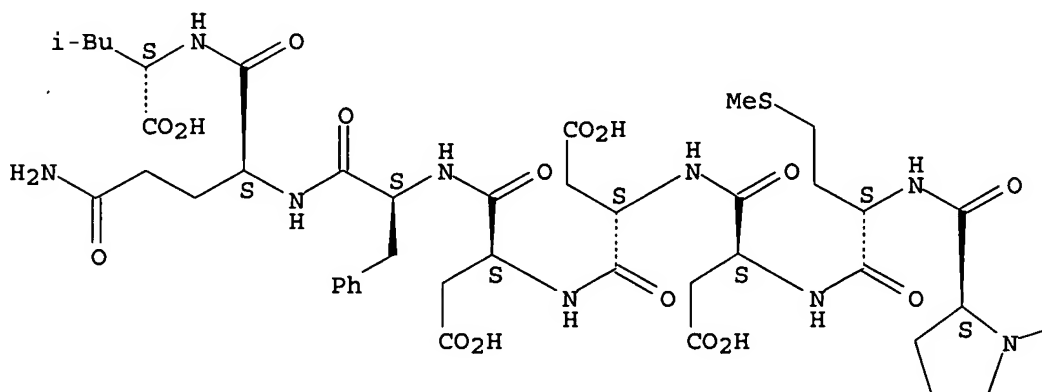
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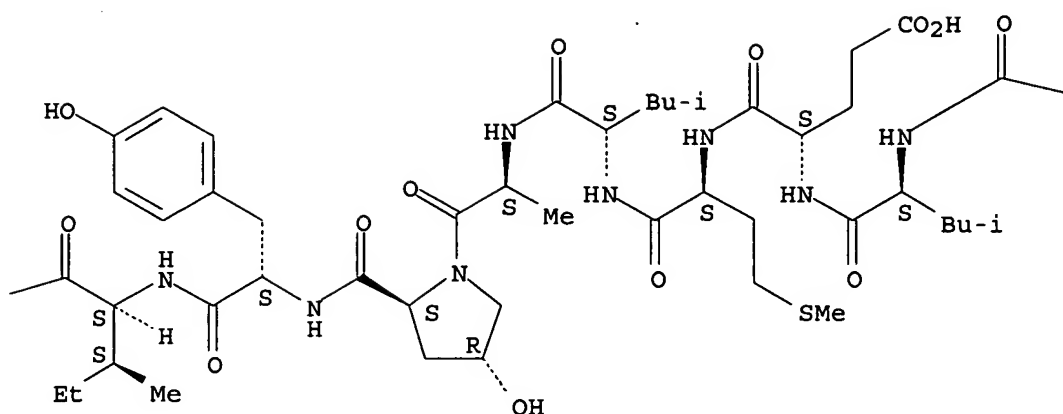
CN L-Leucine, L- α -aspartyl-L-leucyl-L- α -aspartyl-L-leucyl-L- α -glutamyl-L-methionyl-L-leucyl-L-alanyl-(4R)-4-hydroxy-L-prolyl-L-tyrosyl-L-isoleucyl-L-prolyl-L-methionyl-L- α -aspartyl-L- α -aspartyl-L- α -aspartyl-L-phenylalanyl-L-glutamyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

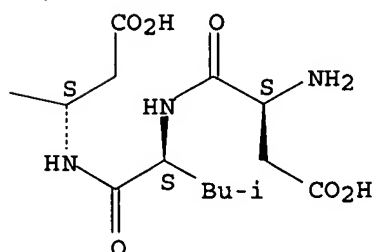
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PAGE 1-B



PAGE 1-C



=> fil uspatfull

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CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 8 Feb 2005 (20050208/PD)

FILE LAST UPDATED: 8 Feb 2005 (20050208/ED)

HIGHEST GRANTED PATENT NUMBER: US6854127

HIGHEST APPLICATION PUBLICATION NUMBER: US2005028237

CA INDEXING IS CURRENT THROUGH 8 Feb 2005 (20050208/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 8 Feb 2005 (20050208/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2004

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2004

IPC fields, including IC, ICM, and ICS are not working properly in the February 8, 2005, update.

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>>> USPAT2 is now available.  USPATFULL contains full text of the  <<<
>>> original, i.e., the earliest published granted patents or      <<<
>>> applications.  USPAT2 contains full text of the latest US     <<<
>>> publications, starting in 2001, for the inventions covered in  <<<
>>> USPATFULL.  A USPATFULL record contains not only the original  <<<
>>> published document but also a list of any subsequent           <<<
>>> publications.  The publication number, patent kind code, and  <<<
>>> publication date for all the US publications for an invention  <<<

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>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

>>> USPATFULL and USPAT2 can be accessed and searched together <<<
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<
>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d l33 bib abs hitstr tot

L33 ANSWER 1 OF 2 USPATFULL on STN
AN 2004:274275 USPATFULL
TI Peptide activators of VEGF
IN McGrath, Kevin, Alpharetta, GA, UNITED STATES
PA Kimberly-Clark Worldwide, Inc. (U.S. corporation)
PI US 2004214777 A1 20041028
AI US 2001-32361 A1 20011221 (10)
DT Utility
FS APPLICATION
LREP SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A., P.O. BOX 2938, MINNEAPOLIS,
MN, 55402
CLMN Number of Claims: 42
ECL Exemplary Claim: 1
DRWN 9 Drawing Page(s)
LN.CNT 1627

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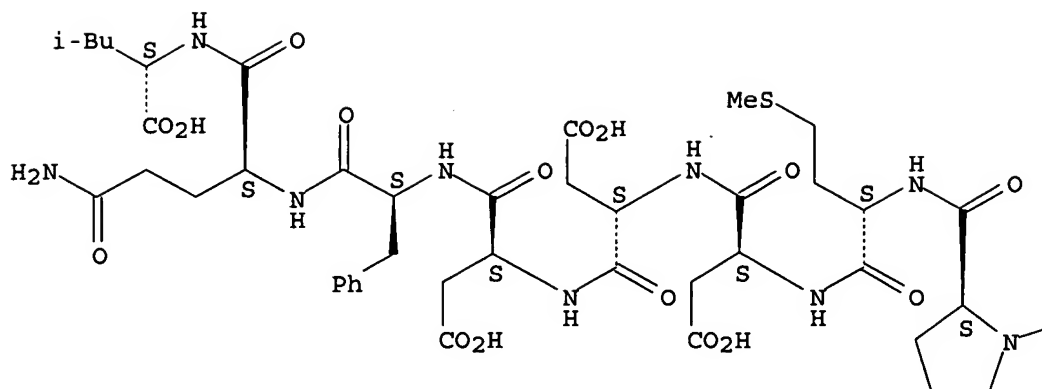
AB The invention provides peptide inhibitors that inhibit ubiquitination of
hypoxia inducible factor 1 alpha (HIF 1- α) and thereby activate
transcription of erythropoietin (EPO), vascular endothelial growth
factor (VEGF), and certain glycolytic enzymes. The invention further
provides formulations containing the present peptides and methods of
using the present peptides for therapeutic purposes. Such therapeutic
purposes include stimulating angiogenesis in injured tissues such as
chronic wounds, heart tissues injured by ischemia or heart attack, and
neural tissues injured by stroke.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

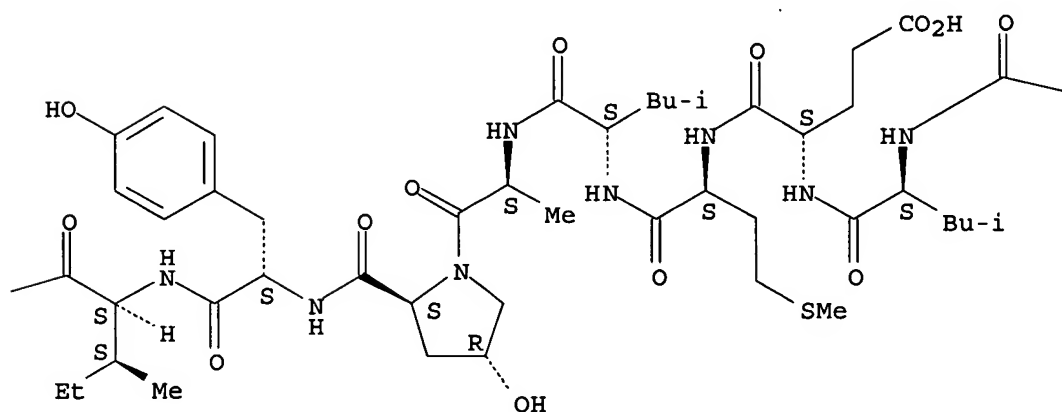
IT 462630-60-0 560085-65-6 561346-13-2
(peptide activators of VEGF for stimulation of angiogenesis)
RN 462630-60-0 USPATFULL
CN L-Leucine, L- α -aspartyl-L-leucyl-L- α -aspartyl-L-leucyl-L-
 α -glutamyl-L-methionyl-L-leucyl-L-alanyl-(4R)-4-hydroxy-L-prolyl-L-
tyrosyl-L-isoleucyl-L-prolyl-L-methionyl-L- α -aspartyl-L- α -
aspartyl-L- α -aspartyl-L-phenylalanyl-L-glutaminy- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

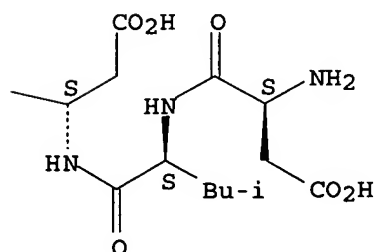
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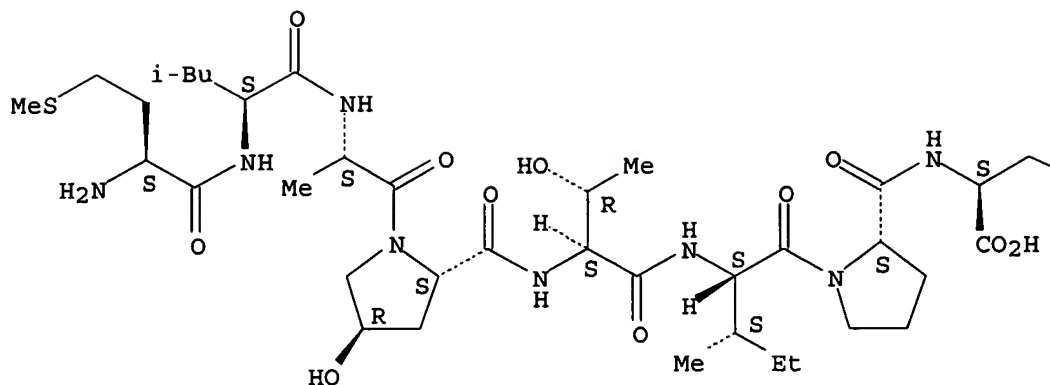


RN 560085-65-6 USPATFULL

CN L-Methionine, L-methionyl-L-leucyl-L-alanyl-(4R)-4-hydroxy-L-prolyl-L-threonyl-L-isoleucyl-L-prolyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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PAGE 1-B



RN 561346-13-2 USPATFULL
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STRUCTURE DIAGRAM IS NOT AVAILABLE

L33 ANSWER 2 OF 2 USPATFULL on STN
 AN 2004:190194 USPATFULL
 TI Assays, methods and means
 IN Maxwell, Patrick Henry, Oxford, UNITED KINGDOM
 Pugh, Christopher William, Oxford, UNITED KINGDOM
 Ratcliffe, Peter John, Oxford, UNITED KINGDOM
 Schofield, Christopher Joseph, Oxford, UNITED KINGDOM
 PI US 2004146964 A1 20040729
 AI US 2004-472595 A1 20040120 (10)
 WO 2002-GB1381 20020321
 PRAI GB 2001-7123 20010321
 GB 2001-18952 20010802
 DT Utility
 FS APPLICATION
 LREP Hamilton Brook, Smith & Reynolds, 530 Virginia Road, PO Box 9133, Concord, MA, 01742-9133
 CLMN Number of Claims: 55
 ECL Exemplary Claim: 1
 DRWN 23 Drawing Page(s)
 LN.CNT 7571
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB A novel class of hydroxylases is described having the amino acid sequence of SEQ ID NO: 2, 4, 6 and 8, and variants and fragments thereof having HIF hydroxylation activity. The polypeptides of the invention have in particular prolyl hydroxylase activity. An assay method monitors

the interaction of the HIF hydroxylase with a substrate. Modulators of HIF hydroxylase are provided for use in the treatment of a condition associated with increased or decreased HIF levels or activity or for the treatment of a condition where it is desirable to modulate HIF levels or activity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 462630-60-0D, variants are claimed

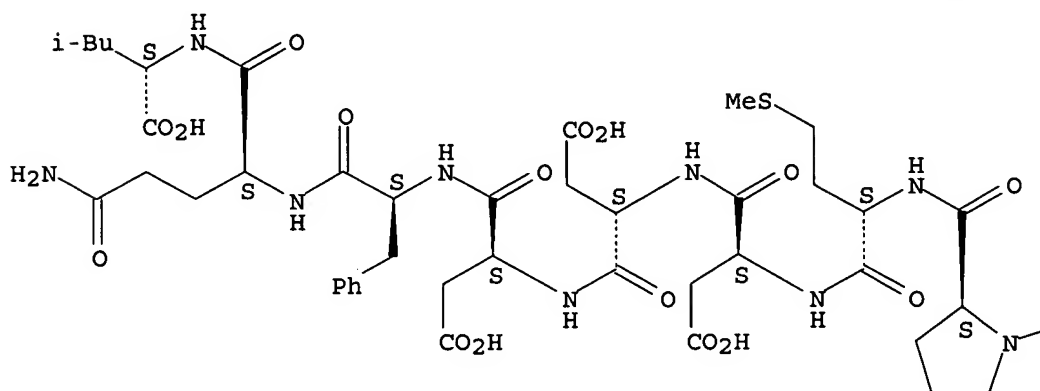
(identification, assay method, characterization, modulators and therapeutic use of HIF prolyl hydroxylase from human and *C. elegans*)

RN 462630-60-0 USPATFULL

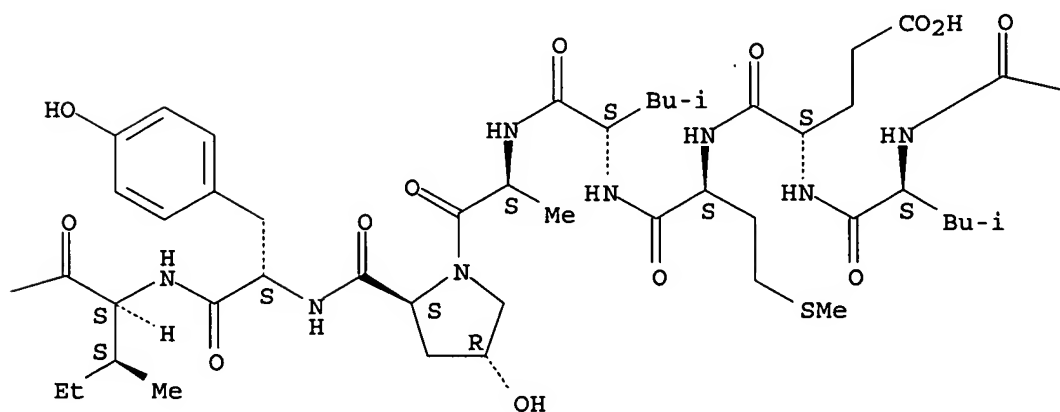
CN L-Leucine, L- α -aspartyl-L-leucyl-L- α -aspartyl-L-leucyl-L- α -glutamyl-L-methionyl-L-leucyl-L-alanyl-(4R)-4-hydroxy-L-prolyl-L-tyrosyl-L-isoleucyl-L-prolyl-L-methionyl-L- α -aspartyl-L- α -aspartyl-L- α -aspartyl-L-phenylalanyl-L-glutamyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

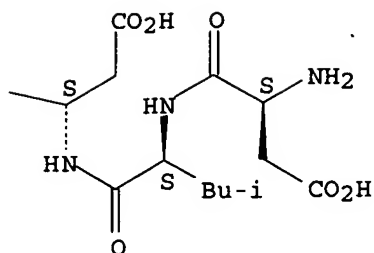
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PAGE 1-C



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FILE 'REGISTRY' ENTERED AT 07:40:32 ON 09 FEB 2005
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 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
 provided by InfoChem.

STRUCTURE FILE UPDATES: 7 FEB 2005 HIGHEST RN 827299-31-0
 DICTIONARY FILE UPDATES: 7 FEB 2005 HIGHEST RN 827299-31-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
 information enter HELP PROP at an arrow prompt in the file or refer
 to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

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L36 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 561346-13-2 REGISTRY
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 (4R)-4-hydroxy-L-prolyl-L-tyrosyl-L-isoleucyl-L-prolyl-L-methionyl-L-
 α -aspartyl-L- α -aspartyl-L- α -aspartyl-L-phenylalanyl-L-
 glutaminyll- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1: PN: WO03057820 SEQID: 7 claimed protein .
 FS PROTEIN SEQUENCE
 SQL 30
 NTE

type	location	description
uncommon	Hyp-20	-

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2003057820 claimed SEQID 7

SEQ 1 YGRKKRRQRR RDLDDLEMLAX YIPMDDDFQL
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MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PROC (Process); PRP (Properties); USES (Uses)

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1. 139:122741

L36 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2005 ACS on STN

RN 560085-65-6 REGISTRY

CN L-Methionine, L-methionyl-L-leucyl-L-alanyl-(4R)-4-hydroxy-L-prolyl-L-threonyl-L-isoleucyl-L-prolyl- (9CI) (CA INDEX NAME)

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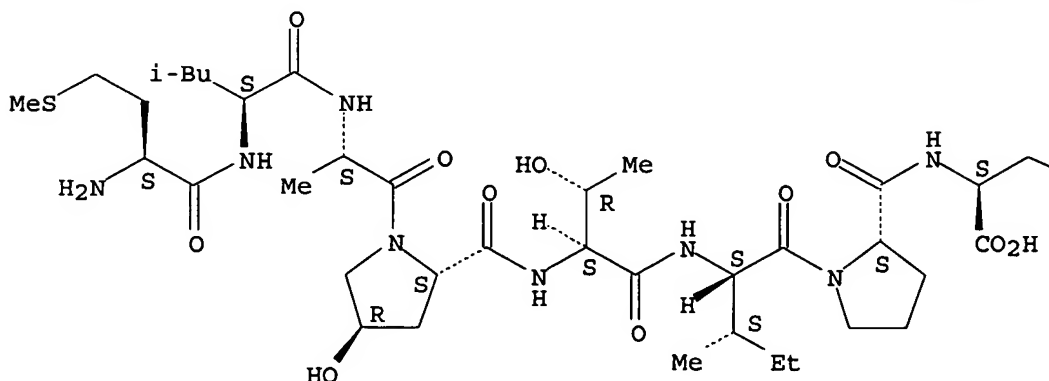
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RL.P Roles from patents: BIOL (Biological study); PROC (Process); PRP (Properties); USES (Uses)

Absolute stereochemistry.

PAGE 1-A



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SMe

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L36 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2005 ACS on STN

RN 462630-60-0 REGISTRY

CN L-Leucine, L- α -aspartyl-L-leucyl-L- α -aspartyl-L-leucyl-L- α -glutamyl-L-methionyl-L-leucyl-L-alanyl-(4R)-4-hydroxy-L-prolyl-L-tyrosyl-L-isoleucyl-L-prolyl-L-methionyl-L- α -aspartyl-L- α -aspartyl-L- α -aspartyl-L-phenylalanyl-L-glutamyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

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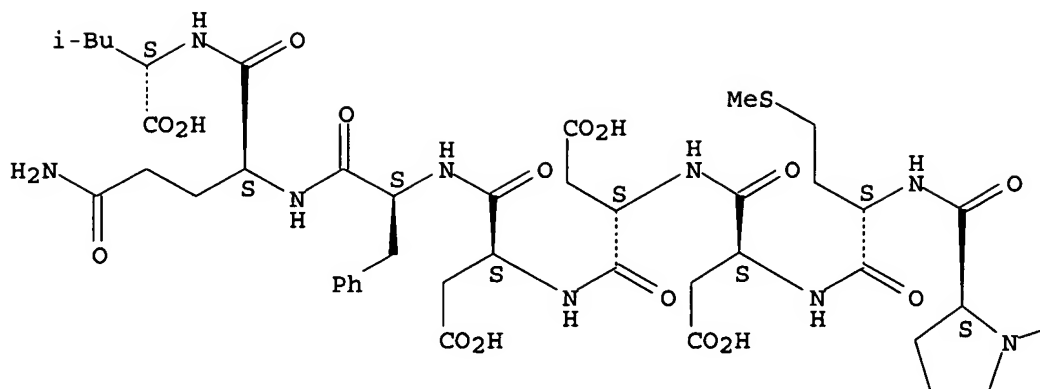
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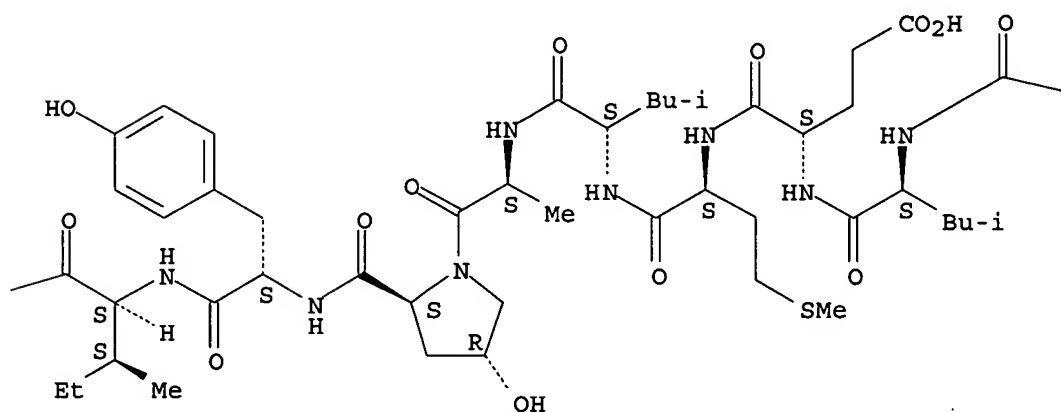
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Absolute stereochemistry.

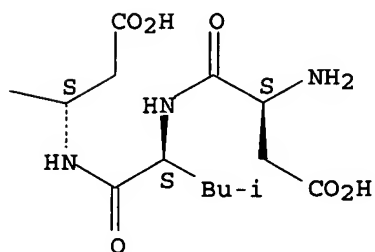
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REFERENCE 1: 139:122741

REFERENCE 2: 137:275008

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L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN

RN 127464-60-2 REGISTRY

CN Vascular endothelial growth factor (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Animal growth regulator, VEGF

CN Animal growth regulators, glioma-derived vascular endothelial growth factors

CN Animal growth regulators, VEGF

CN Animal growth regulators, VEGF (vascular endothelial growth factor)

CN Cytokines, vascular permeability factor

CN Folliculo-stellate-derived growth factors

CN FsdGF pituitary hormones

CN Glioma-derived vascular endothelial growth factors

CN Pituitary hormones, folliculo-stellate-derived growth factors

CN Vascular permeability factor

CN Vasculotropin

MF Unspecified

CI MAN

SR CA

LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CEN, CHEMCATS, CIN, DDFU, DRUGU, EMBASE, IPA, PHAR, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL (*File contains numerically searchable property data)

DT.CA Caplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)

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10938 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 142:120502

REFERENCE 2: 142:120391

REFERENCE 3: 142:114054

REFERENCE 4: 142:112454

REFERENCE 5: 142:112108

REFERENCE 6: 142:112106

REFERENCE 7: 142:111841

REFERENCE 8: 142:111832

REFERENCE 9: 142:111757

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